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THE MOTION PICTURE CAMERA MAGAZINE



December, 1937



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American Society
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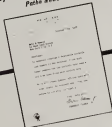
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WHAT 1937 HAS SHOWN IN TECHNICAL PROGRESS IN MOTION PICTURE MAKING

THE year 1937 has been for the motion picture industry one of peak production. As such, technical progress has been basically along lines tending to improve or expedite details, rather than in sweeping changes. Nevertheless, definite advances are noticeable in many directions, and in some fields—most notably, perhaps, that of raw film manufacture—sweeping advances are heralded for the immediate future, if not already announced.

A very definite trend toward color has been noted, while last year's trend of modernizing the equipment of studio camera departments has continued unabated. A radical change in the contractual relations between studios and sound equipment purveyors has been seen.

The sub-standard field has grown enormously, with 16mm. taking on increased importance as a semi-professional and educational standard. The demand for 8mm. equipment has grown to such proportions that manufacturers have fallen behind in their orders even before the Christmas rush has started.

Until shortly before this review was written production schedules and budgets had both been on the increase; in the opinions of some experts somewhat too greatly in advance of box office receipts. As this is written a trend toward production economy is noticeable, while the erstwhile despised program picture gains higher esteem.

Methods

The move toward color during the latter months of 1937 has taken on almost the aspect of a boom. Following notable and progressive advancements in the quality of natural color cinematography, and especially in the laboratory processing of color film and prints, several major producers, already committed to the production of one or several color features, increased their commitments, while others, including several studios previously uninterested in or even opposed to color, have contracted for color features. Yet another major producer, Samuel Goldwyn, of United Artists, announced his future production would be entirely in color.

Coincidentally with this, an increasing number of major studio contract directors of photography, previously associated only with the production of important monochrome films, have been placed in charge of photographing natural color productions.

The success of these members of the A.S.C. in the still new artistic and technical field of color is and will be, if judged by such films as already have been released or previewed, fully as great as had been forecast in these columns. It may well give color a further impetus.

Trend to Color

The trend toward color has also been evidenced in the revival of tinting and toning monochrome film by at least two studios. This has been done with greater artistic restraint than was known in the tint-and-tone work of silent days and, with the advantage of today's refined use of sensibrometric control and machine operations, is technically vastly superior to previous uses of these processes.

The year has been marked by a lessening of the stream of foreign-bound Hollywood technicians. This has been due to a general tightening up of restrictions on imported talent in the various foreign producing centers and to the improvement of native talent in many cases.

Tighter economic regulations in several foreign countries, in combination with war and war scares in both Europe and Asia, have been seriously reflected on the receipts of American films.

Raw Materials

The much discussed establishment of a British Metro-Goldwyn-Mayer production unit has become a fact, with the firm's first British-American feature under way. E-K-O is understood to have reached a somewhat similar arrangement with the British producer Herbert Wilcox.

Two important new types of raw film material have come into general use. Chronologically the first is Agfa's Type B infra-red sensitive film. This emulsion is in a way similar to the firm's previous type inasmuch as its sensitivity is such as to permit the use of filters for lighter than those previously employed for infra-red photography, giving a greatly increased effective speed.

For Night Effects

The new type, however, is characterized by a more normal contrast and gradation, permitting its use not only in background and atmospheric night effect scenes, but in filming night effects of normal action including close-ups of principal players. The use of this film for filming exterior night effects by daylight has become almost general.

The second notable improvement is the introduction of Eastman's two new duplicating films, which have revolutionized the creating of duplicate negatives. One of these emulsions is for making the master duplicating positive from which the dupe negative is printed; the other for making the duplicate negative itself.

With them it is for the first time possible to get dupe negatives from which prints indistinguishable from prints from the original negative can be made.

Aside from the obvious uses of these materials in special effects processes they are capable of saving the studios notable sums in the making of foreign release prints and in addition bring to foreign audiences identical photographic quality seen in American releases—a quality heretofore all too often lacking.

New Agfa Negative

As this is written Agfa is preparing to make formal announcement of two new negative films, at least one of which has in some cases been used on actual major studio production.

The first of these is trade named Supreme, and is reported to have a Weston speed rating of G1 to daylight and 40 to incandescent light, while retaining fine-grain characteristics equal or superior to the previous Superpan type. The second is known as Ultrapan, and is said to have a

sensitivity still greater than this exceptional speed.

It is understood other manufacturers have similar super-speed emulsions in preparation, so 1938 may confidently be forecast as a year of revolutionary changes in film, and consequently in lighting, processing and many allied techniques.

In the sub-standard field the major reversal-type products have remained basically unchanged, but two new 16mm negative films have been put out.

DuPont introduced an improved 16mm version of its familiar Superior panchromatic film, and Agfa, in addition to supplying the familiar Superpan emulsion on 16mm stock, introduced a sub-standard version of the moderate speed, fine-grain Finopan already used for background and miniature camera photography.

It may in this connection also be remarked that DuPont introduced a new emulsion of this type for miniature camera use under the name Parpan.

Cameras

Geraert, already in the sub-standard field in Europe, and in this country as supplier of the pre-sold 8mm film for the popular-priced Unovex, entered the double-width 8mm field with several films including a super-speed variety.

No radical innovation in professional motion picture cameras appeared. The trend toward modernizing major studio camera equipment continued, however, with an increasing number of the self-blipped Mitchell NC type cameras as well as new standard silenced cameras of the same manufacture going into service.

The combination of an unexpectedly increased demand with a shortage of high-grade optical products, both imported and domestic, has resulted in a nation-wide shortage of sub-standard — particularly 8mm — cameras and projectors of all types.

Accessories

Some few foreign sub-standard equipments have appeared on the American market, and there are persistent rumors that at least one notable European manufacturer of 16mm, and 8mm cameras is shortly to erect an American factory.

A new 16mm, sound-on-film single-system camera recorder, the Gumbier Sycro-Sound, has been introduced. This is a semi-professional equipment, following essentially professional practice as regards size, general operation, and the like, but evidencing interesting innovations in the dual synchronized motor drive of the picture and sound movements of the film.

Several interesting accessories to

professional production have been developed. Among these may be mentioned a device for variable diffusion effects developed by Emil Oster, of the Columbia Studio. This consists of a simple mechanism for raising or lowering a gauze or other diffuser in front of a camera lens.

The device is built into the blimp, and is controlled from the outside. John Arnold, A.S.C., developed a rotating screen to protect camera lenses from water and spray in filming rain and storm scenes.

An outstanding accessory in the sub-standard field is the Harrison Colorimeter, a direct development of the color balancing finder unit made by Harrison for the Dunningcolor camera and chronicled in these pages a year ago.

A reading is obtained from the meter by visual inspection. This reading in turn governs the choice of the color correcting filter used to correct the color rendition of the scene to normal standards. The same firm marketed a set of matched filters for black-and-white cinematography, so coordinated that all filters have the same exposure factor.

Filters

No advancement in this field entered the realm of practical camera-work. Reports of a liquid lens of greatly increased transmission and virtually universal depth of field come from England, while at the California Institute of Technology experiments with a new lens working at an aperture considerably greater than f/1 are reported. Neither has as yet reached the commercial stage.

Lighting

The trend toward lower levels of illumination continues, and is heightened by a marked trend toward lighting almost exclusively with spotlights. In the lighting of natural color productions, two definite and contradictory schools of thought are evident. One holds that the fact of color eliminates much of the need for high contrasts in illumination, while the other holds that the best results are had by lighting color with somewhat greater contrast than would be the case in monochrome.

Both are represented by capable artists and excellent films, leaving the true result in doubt pending further spread of color cinematography.

The popularity of the more efficient Fresnel-lensed lighting units increases. The originators of these lamps as applied to cinematography, Mole-Richardson, Inc., have introduced two new units of the Solarapet type: a 1000-Watt unit and a 560-Watt "baby spot," as well as a small



When the courtesan—just for a look—has the look on the player: Earl Glenn, A. B. Co. directing photography in Goldwyn's "Harmony," and Mary Astor, just after the player has donned dry suit, save her rough experience in the breath-taking scenes of that man-made element the whole the cinematographer looked on from behind the camera, quite high and comparatively dry. The player admits he really wonders how she can be being photographed not so long before when not even a microphone would have reached the base of a smile as his face. The result of that picture Miss Astor saw in the making is reproduced on the opposite page.

45-Ampere H 1 Arc spotlight embodying the same principle.

Another firm, Bardwell & McAllister, Inc., introduced a Fresnel-lensed 2000-Watt unit known as the Keg-Lite, and a larger 24-inch unit known as the Type T-5 studio spot in which a Fresnel type lens is combined with the conventional parabolic mirror to give an even flood, a fact unrealized before in the 24-inch lamp. This principle, which involves a differential movement between the globe and lens, can be applied to the modernization of existing reflecting 24-inch spotlights.

Lighting Techniques

Incandescent lighting units, using the over-volted Mavedood type of high color temperature incandescent filament globes in conjunction with special daylight-blue filters, have been officially approved and used successfully in Technicolor photography.

In this connection, too, it may be said that with the availability of modern, Fresnel-lensed spotlighting units of adequate power, floodlighting units, and especially the overhead "scopes," have been as completely eliminated from color cinematography as have comparable incandescent floodlighting units from black-and-white cinematography.

Two new types of flash globes for still photography have been developed. One is an American version of the wire-filled Phillips globe, made here under the name Waback.

This globe uses fine hydroaluminum wire instead of foil, and due to this claims a longer peak of higher effective illumination. The other, a controlled mercury arc, was developed by General Electric. This globe may be used repeatedly, and gives a fast flash of extreme brilliance.

Special-Process Cinematography

Several of the users of the projected background or transparency process have made important strides in illumination, thereby making possible the use of notably larger background screens.

The same factor has made it possible to employ the process more extensively in natural color productions, as will be noted from several current productions.

An equipment for using this process in conjunction with stereoscopes or lantern slide static background has been made available to commercial photographers as well as to the industry.

As has been indicated, the latter months of this year have taken on the proportions of a boom in color production, with all but two of the major studios, as well as several important independent producers for



For explanation see caption under picture on opposite page. The scene would seem to be even.

such major releases, making one or more color features.

All of these films are being made in one process—Technicolor—while independent production of two-color features, so noticeable a year ago, has declined almost if not literally to the vanishing point.

Three Color Trend

At least one of these two-color processes is, however, in the final stages of a transition to three-color, while several other promising three-color systems are under intensive development.

Early in the year the Agfa-farol process was described before the So-

ciety of Motion Picture Engineers and in articles in this and other journals.

It is a multiple-layer, selectively sensitized emulsion similar in principle to the familiar Kodachrome, from which it differs, however, in detail and especially in the fact that one of the dye-coupler components is latent in the emulsion itself, while the others are added in a single color developer bath subsequent to normal black-and-white reversal operations.

This film is not as yet commercially available in this country, though it is marketed in Europe.

The Dufaycolor process has cap-

(Continued on Page 497)

COOPERATION BULKS BIG IN WORK OF MAKE-UP

By PERC WESTMORE

Head of Make-up Department, Warner Brothers—First National Studios

(Abridged from an address given at the September meeting of the American Society of Cinematographers)

THE most important factors in the success of any kind of make-up work are thorough understanding and cooperation between the cinematographer and the make-up artist. Each actually exists to help the other in the task of presenting interesting and convincing characters on the screen.

If both keep this fact in mind, they can simplify each other's work tremendously. If they are, as is too often the case, at sword's points, the best efforts of neither can bring wholly satisfactory results.

The reason I am here tonight is to try to encourage such a spirit of understanding.

You gentlemen here realize that, apart from minor personal techniques, there is no real mystery about cinematography. That idea went out of style with backwood-turned caps. Speaking with equal frankness, there is no real mystery about make-up, either. The man who tries to shroud either cinematography or make-up with an aura of mystery is fooling no one but himself. He is not increasing the importance of his work, but tearing it down.

That is the big trouble with the "corrective" technique of make-up today. In some studios it is quite rightly regarded as the most important recent development in make-up, and used as a fixed part of the studio's routine. In other studios, it has seemed a failure.

Cooperation Counts

If you will look below the surface you will invariably find that the studios using this technique successfully are those where genuine cooperation between make-up and cinematography exists, and that those in which it has not succeeded are those in which such cooperation does not exist.

It has been charged that this method of make-up attempts to light the players for the cinematographer. This is not true. No possible combination of make-up can take the place of the cinematographer's lighting. But correctly used, "corrective" make-up can supplement the cinematographer's work, and make his problems easier.

The whole system is built on the simple idea that concave areas in a face absorb more light than do convex areas. Conversely, a protruding

area, since it is not physically shadowed, will reflect more light than a hollow.

The cinematographer's method of dealing with these facial irregularities is to project more light into hollows, and less on to protruding areas. Corrective make-up in its simplest form strives, with considerable success, to create artificial areas of highlight where more light is needed, and artificial shadows where less light is needed.

Helping Cinematographer

In other words, where we know the cinematographer would naturally need more light—as in a hollow under an eye, for example—we simply offset some of the natural absorption of light which causes the shadow by using a lighter shade of make-up for that particular spot; and where a natural bulge tells us the cinematographer will want less light, to minimize the natural highlight from the rounded surface, we help the cinematographer by using make-up of a tone darker—and therefore more light absorptive than that used on the surrounding features.

If these corrections are actually made with light it is not always easy, or even possible, to confine the light to the relatively small area where it is needed. The surplus therefore "dials" off on to other parts of the face; sometimes on to areas where such added light might be likely to accentuate otherwise acceptable features unpleasantly.

For instance, suppose a cinematographer is adding light to smoothe out some hollows under the eyes, and the player in question has some inclination toward a square jaw. The added light which would "bait out" the eye hollows would be very likely to exaggerate the slight fullness of the jaw into a jaw! The make-up man can help the cinematographer with this problem. To begin with, he would treat the little concavities under the eyes with a lighter make-up, so that less light would be needed to blend them into the smooth area of the face.

At the same time, he would apply a somewhat darker make-up to the



How a corrective make-up is checked. The drawing shows the Make-up Department's chart of Beverly Roberts' corrective make-up. The photo shows the make-up applied, with the shaded and highlighted areas outlined.



Striking Scenes From Goldwyn's "The Hurricane"

Director of Photography,
Bert Glennon, A. S. C.

Gay Cohan and Alan Hable photographed the stills.

At left, above—Tyrone and Marjorie decide to take a chance to outwit the fury of the waves by climbing a palm tree.

Below—At left—Father Paul (Anthony Smith) and Germaine de Lamer (Mary Astor) fight their way toward the island church in the hope of finding refuge from the storm. At right—Tyrone (Don Hall), Marjorie (Marjorie Lawrence) and Tito (Hank Bellamy), their child, risk their entrustment in order to procure deliverance.

On opposite page—Top, South Sea Island Scout Bottom, left, Bert, who assumed fame as the native hero of "Tiki," South Sea Island production of the late F. W. Murnau and released in 1935 by Paramount, returns to the screen Bottom, right, better stills contrasting Marjorie, the bride, and widow bar with blossoms





COLOR AN ADVANTAGE SHOOTING STEEL MILLS

By CHARLES P. BOYLE, A.S.C.

I HAVE just returned from making a feature-length industrial film for the United States Steel Corporation, telling the story of steel from the mine to the finished product. Making any kind of a production on such a location is a difficult photographic assignment; but this particular film was photographed entirely in Technicolor! At first thought one might believe this would add greatly to the photographic problems of making the picture, with but little to show in added visual effect.

Actually, I am convinced the exact opposite was the case, for the color helped us solve some of our photographic problems, and added very definitely to the visual effects on the screen. We could not have achieved so graphic a presentation of the steel industry had we been confined to black-and-white.

Anyone who has ever visited a big steel mill carries away with him memories of huge, pitch-black buildings, highlighted here and there by the white-hot glow of incandescent metal. Photographically it is a study in absolute extremes of dazzling white light and inky-black shadow.

From the cinematographer's viewpoint the problem is magnified by the incredibly huge areas to be presented in many shots. Buildings that will

house a battery of half a dozen or a dozen mighty open hearth furnaces and the great machinery used to charge these and to ladle off the molten steel are just too vast to be described in words.

Lighting Mill Big Job

All of this makes the matter of lighting any sort of a steel mill picture a really big one. For either black-and-white or color, it is of course manifestly impossible to build up the lighting level to anything like equality with the incandescent glare of the molten metal.

It is just as impossible to attempt to light up the whole huge area. These limitations are heightened when you consider that working on such a location one is thousands of miles away from the great store of lighting equipment we take for granted in Hollywood, and must do the job with a relatively limited supply of both lamps and power.

Since we were shooting Technicolor we had the advantage of using the modern, high-powered arc lighting units developed especially for Technicolor by Mole-Richardson. Our equipment consisted of a half dozen M-R Side Arcs, ten M-R Type 170 H.I. Arc 150 Amp spotlights, six M-R Type 90 H.I. Arc 85-Amp. spotlights, and three

of the little 65-Amp. H.I. Arcs. Our power supply was from one of Mole-Richardson's new 175-Kw. gas-line-electric generator trucks. Not particularly generous resources for lighting up hundreds of square feet of soot-covered blackness!

Lighting the closer angles, of course, was no great problem. But in lighting the long shots we had to develop a technique of revealing what we could, and suggesting what we could not directly reveal. Suppose, for instance, that we were making a shot of a long battery of blast furnaces.

Lamps in Groups

We would plan things so that in the foreground we would have whatever action might be important, lit fully and naturally. For this we made especial use of the side arcs and some of the smaller spotlights.

The other spotlights would be distributed at intervals down the length of the building, not attempting to spread their light over the whole vast area, but concentrated in groups here and there, each group of lamps picking out some important action, or creating a potentially necessary highlight.

At one point in the background one of the furnace doors might be ajar, creating another strong highlight. At



1. In this scene showing molten steel being poured from a massive ladle, the background is purposely lit, while open furnace doors in the distance send death to the shot. 2. Making the better shot of "Men of Steel" facing the Technicolor camera on the interior of a huge electric furnace. (Photo courtesy United States Steel Corporation and Robert Reed Productions.)

other points furnace doors might be opened intermittently in routine operation, momentarily throwing the men working there into hold silhouette. At the extreme end of the building was an open door, through which the sunlight outside could be seen.

Thus our long shots literally showed the highlights of the scene, the details of which later could be shown more clearly in closer shots. From the purely photographic viewpoint this enabled us to make the shot, despite the huge area to be covered and our relatively small supply of equipment. Actually, I feel this treatment, which suggests things rather than showing them with bald literalness helped us out in solving the problem of photographing the various operations on glowing hot metal. Often we would make long shots of such operations carried out on a production line basis.

White to Yellow

In the distance, where its dazzling intensity would not be too overpowering, would be seen the start of the operation, on white-hot incandescent metal. As the operation moved down toward the camera the metal would grow cooler, so that by the time it reached the foreground of the shot, while still definitely glowing, it would no longer be a white-hot blaze utterly beyond the power of our lamps to balance.

Then, incidentally, gave us a very interesting pictorial effect. Oddly enough, while the metal's color changes visibly as it cools, and this change is of course reproduced in

color on the screen, the change does not seem disturbing or unnatural.

In fact, it seems to add to the effect of the scene. At the far end the metal is obviously white-hot. As it cools in the working, and comes near the camera, the white heat fades to a yellow glow, to orange and finally to a red; and in so doing, it makes it much easier for the audience to see just what is being done to shape the metal.

There were, of course, some shots necessarily made at points where the metal was still white-hot. In these the primary illumination was often supplied by the metal itself. One might easily expect that to be a considerable problem in color, where the color of the lighting is of such importance.

Actually, it was not; in some cases the metal was heated to a temperature of as much as 3000 degrees Fahrenheit, which gave an excellent white light. In such scenes we often used neutral density filters to reduce the intensity of this incandescent glare to a point our equipment could handle, building up our lighting proportionately.

In other scenes, where the metal was cooler, it ran through a variety of shades from orange to dull red. As it cooled, the light intensity lessened, so that instead of being something that actively competed with our lighting, the metal became merely hot, glowing metal, and was shown as such on the screen.

Strong Contrasts

Here was one point where color was definitely superior to black-and-white for such a picture, for in monochrome, aside from the intensity of the metal's glow, the camera can make no distinction between white-hot and red-hot metal, and can thus give a very

exaggerated impression of a scene. The contrasts between our illuminated areas and the necessarily jet-black surroundings also served to heighten the effects of color. The natural colors of the steelworkers and their clothes contrasted with the many-colored glow of the hot metals, and set in a frame of velvety blackness made unusually effective color scenes out of shots which, in monochrome, might have been ordinary.

It may be mentioned, too, that between the lighting methods we used and the efficiency of the area with which we were equipped, we found the relatively few lamps we carried ample for our needs, even though some of our shots embraced as much as a full city block in depth. On several occasions our Type 170 HI Arcs projected their beams effectively for well over a hundred feet.

While this film, which is to be titled "Men of Steel," is technically an industrial production, it is far different from the general idea of an industrial film. Aside from the use of Technicolor, Roland Reed, who produced the film for the United States Steel Corporation, has given it a production and budget worthy of a major-studio program film.

Film Is Educational

The production is not, actually, a selling or advertising film. Its purpose is primarily educational; it is intended to give the public a more truthful idea of the men who make steel, and what they do. As such, several versions are being prepared, ranging from a one-reel version for theatrical release up to a five-reel feature for educational use in schools and clubs.

I have been told that several major studio executives who have viewed

(Continued on Page 527)



L. On the screen, the massive steel ingot glows orange-red as it is rolled into thin sheets. R. Arc lights illuminate a pour of molten iron flowing into molds. (Photo courtesy United States Steel Corporation and Roland Reed Productions.)

SOVIET WORKING IN NEW STEREOSCOPIC PICTURES

Released Through Press and
Publisher Literary Service

By V. SOLYEV

THE problem of stereoscopic, three-dimensional motion picture projection is now being widely discussed in motion picture circles and research institutes of Moscow.

The Scientific Research Institute of Motion Pictures and Photography, Nikfi, is now seriously engaged in perfecting the projection of motion

pictures by anaglyph methods, by means of polarizing filters, "fan-shaped" screen and so on.

Furthermore, interesting research is also being done in the three dimensional reproduction of sound.

Three-Dimensional Sounds

Recently, the motion picture engineer P. G. Tupanov, one of the pioneers

of the sound film in the Soviet Union, published a report of his work on the attainment of spatial localization of the sounds heard by motion picture spectators in the auditorium of the theatre. The work was done in one of the laboratories of Nikfi in Moscow.

Shorten Dialogue

The static effect of the sound reproduction in contrast to the dynamic effect of the action unfolding on the screen always disappoints the spectator who newly comes to the modern motion picture theatre. As the boredom caused by this is intensified when listening to long dialogues, it has even influenced scenario writing, forcing the script writer to shorten the dialogue.

Even in scenes where the action is static the gross lack of spatial synchronism between the sound and the screen image strikes home to the spectator. He cannot focus both vision and hearing in that, let us say, corner of the screen where the film character is projected at a given moment.

The character is in one corner while the sound is heard somewhere from the other side. Hence, the spectacle has a great deal less effective influence on the spectator.

How to Eliminate

For these reasons it was decided that fundamental changes had to be made in sound projection, and consequently also in sound recording.

How can this discrepancy between sound and action be eliminated?

This can be done by using two microphones, mounted both on the left and on the right side of the place of action instead of using on which records sound on a single sound-track.

If the actor goes from left to right then the louder sounds of his steps will be received first by the left microphone and afterward by the right.

Both sound films also will record

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analogous diminishing and increasing loudness of sounds. In projection the left sound film should be reproduced through a loud speaker mounted in the left half of the screen and the right sound film through a loud speaker on the right side. (See sketch).

Then the spectator, seated in the theatre, is convinced that the sound of the steps of the moving character is actually transmitted simultaneously with the movement of the person from one side to the other.

If in addition to the two side microphones there would be a third in the interior of the set used for photographing and also a corresponding third sound track as well as a third loud speaker situated for projection some distance behind the screen, then

it appears possible to reproduce in sound also the depth of the motion picture spectacle—the convergence and recession of sounds in respect to the spectator.

In this way the motion picture sound would be brought to correspond not only with modern two-dimensional but also with the future three-dimensional motion picture projection.

Multiple Recording

The whole question hinges on how to record two or even three sound tracks instead of one on a motion picture film. There are several solutions of this problem, arrived at by the most varied ways. But even if one had to use for the sound film a separate film from the one on which the image is photographed that would not be too great a price to pay for

the attainment of a complete "stereoscopic effect" in sound.

Sound reproduction of this kind will become an urgent necessity in case three-dimensional motion picture projection is actually realized.

Stereoscopic Spectacle

Are there elements of stereoscopic vision in the motion picture theatres at present? Can we intensify these elements, preparing in this way for a complete shift to the building up of three-dimensional motion picture projection?

Questions like these were raised recently at one of the scientific meetings on stereoscopic motion pictures, which are periodically arranged by the Scientific Society of Engineers and Technicians of Motion Pictures and Photography in Moscow.

It appears that there are such elements and that they can be intensified. A three-dimensional motion picture spectacle can be most frequently observed at present when a geographic landscape is shown. Landscapes are often photographed with a motion picture camera that is smoothly moving as when mounted on an automobile or in the window of a railway coach.

The depth and relief of image obtained is quite extraordinary, especially if it be seen on a well-lighted screen in the preview auditorium of a motion picture studio.

Stereoscopic Pair

This phenomenon is explained by the fact that under these conditions every fifth or sixth frame forms a "stereoscopic pair" of images, such as we have for looking through the ordinary stereoscope, which gives fixed images. (In the stereoscope also there are two photographs taken from somewhat different angles of vision).

Impressions from frames of film in dynamic movement do not vanish immediately from the perceiving eye. Moving dynamically, the first frame seen combines with the fifth or sixth, forming the stereoscopic pair sought for. By placing such frames in an ordinary stereoscope this can be demonstrated statically.



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Apart from the formation of such a pair of images there is an additional general requirement which the stereoscopic frame must meet; that is, it must imitate as nearly as possible the normal conditions of human vision.

Anything unnatural and unusual in the structure of the image hinders a living perception of it. The angle at which shadows fall, the width of the field of vision, the correctness of perspective—the eye takes in all this in the determination of volume, and all this inevitably betrays anything artificial in the structure of the object.

Just recall with what certainty you determine where a photograph was taken; this in a theatre, that in a motion picture studio, but this one here, from life.

Enlarging Vision

The limit of naturalness in lighting, observance of perspective, width of the field of vision—these are essential factors which the cameraman must observe to obtain the maximum stereoscopic effect in motion picture projection.

The field of vision will be enlarged to limits approximating the normal sensitive vision of man; whereas at present motion picture photographs are taken from an angle of vision embracing one-third to one-half the normal field of human vision.

Stereoscopic effect is no less remarkable from the viewpoint of the spectator's vision.

Human vision grows feebler with age not only through the human eyes losing "f-value" and "focal adaptation," but also through the loss of stereoscopic perception of objects. All becomes flat or two-dimensional as in the present-day motion picture screen. But the three-dimensional screen will be able to restore to any person the

complete stereoscopic effect of youthful vision.

The very proportions of the screen and the corresponding proportions of the motion picture frame should approximate more closely the form of the human visual field, which is conditioned by the structure of the optic orbits. If this be roughly portrayed in rectangular form, then a figure is obtained where the sides are in a proportion of 1.8 and not 3:4 as is true of the modern frame of film.

Stereoscopic Photographs

In the motion picture section of the All-Union Inventors Society in Moscow they say: "If you have strips of film which were photographed by a

camera in smooth movement then you have an excellent collection of stereoscopic photographs.

The inventor, A. K. Kaufman, has assembled a whole collection of about 150 pairs of frames, such as were just mentioned, and looks at them through an ordinary stereoscope. (In this the frames are looked at by transparency).

In the course of this collecting observations were made on the peculiarities in human perception of a three-dimensional motion picture spectacle. These observations are quite interesting for workers of the stereoscopic motion picture. How lit-

(Continued on Page 596)

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A.S.C. Members on Parade

(Continued from Page 495)

• **Sel Halperin, A.S.C.**, a member of the African expedition of Twentieth-Fox's "Stanley-Levingstone" production, on his return stopped off in London. There he was joined by Mrs. Halperin, following which the two toured the Continent. The Halperins are expected back in California early in December.

• **George Meehan, A.S.C.**, of the Columbia Studio, extracted his fangs from the moth balls and went to Canada with one of his studio's units on picturemaking bent.

• **Merritt Gerstad, A.S.C.**, has erected so pretentious a home on his large

valley acreage his associates decline to classify the combination as anything less in rank than an estate, particularly those who have been permitted to see the new stables now under construction. All of which is quite all right with M. G. He admits he really is beginning to live.

• **James Van Trees, A.S.C.**, and **Edward Blackburn, A.S.C.**, trekked north to the Rogue River early in November hunting steelheads. Both are in entire agreement the gamey tribe was running strong. That is understandable. What does sound at least a bit—er, strange, anyway, is that each insists the other caught the biggest one.

• **John Boyle, A.S.C.**, recently returned from England after a stay of two and a half years, has been busy at the Columbia studio.

• **Rude Mate, A.S.C.**, has returned to the West Coast following a visit to New York.

FORTUNE AND THE WARNERS

THE magazine Fortune for December devotes eight full pages of its 114 by 14 inch size to the rise and methods of Warner Brothers by means of which it was enabled to register a profit of six million dollars last year. It is an intimate story and an interesting one. It begins at the beginning and comes right down to today.

The magazine suggests the company has larger gross assets (\$177,350,000) than any other motion picture company. Of Harry Warner, the head of the company as well as of the family, it remarks that while he may not be as witty as Jack he is more surprising and his career is more entertaining than some of Jack's movies. It quotes Abe Warner as regarding the company which produces sixty pictures a year for him to distribute as the Ford of the Movies—by which meaning its position in the low priced field and the profit riding in the volume rather than in an occasional "smash" hit.

No one who has been a part of or even on the fringe of the picture business for any number of years can scan this tale of the brothers without finding a lot of meat in it. "The Warner Brothers trust few people outside their own camp," it remarks casually, "but in each other they have the most implicit confidence." Warner Brothers personally, as Harry once put it, "have always construed themselves as one."

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What 1937 Has Shown

(Continued from Page 485)

tured a large part of the studio color still field. This material also is generally available in most standard professional and amateur sizes of roll and cut film.

In Europe some use of the process has been made for cinematography in 35mm. as well as the amateur sizes of 16mm. and 8.5mm. Abroad, too, a special negative-positive version of the process has been introduced.

In America, the Dufay Company, in addition to establishing laboratories in several key cities for processing both professional and amateur color films, has established a central laboratory where both duplicate transparencies and paper prints from Dufay originals are made.

Make-Up

Notable improvements in make-up for natural-color photography have been evidenced with each succeeding color film. In addition a special lip make-up for use in filming night effects with the new infra-red film has been evolved.

A new version of the familiar Moviola film-viewing machine was introduced. This added to the familiar Moviola direct-magnifying viewing a feature permitting projection of the picture, right side up and laterally correct, on a 5 by 7 inch ground glass screen.

This new feature was obtained by adding an auxiliary lamp house which swings over the regular viewing lens, which then serves as a condenser, while the image is projected through an objective lens into a shadow box built into the machine and reflected upward from a spherical mirror to the ground glass.

Sound Recording

This year has seen a change in sound recording which would have been utterly inconceivable in the early days of sound. This is the greater contractual freedom now enjoyed by the studios. Regardless of the recording system regularly used by a studio it is now possible for a sound department head to employ any system for any individual production or sequence for which he may deem it superior. This has been done in several instances.

Both RCA's ultra-violet light recording (variable area) and Western

Electric's "Microphonic" push-pull recording systems have become virtually standard, though release prints as a rule carry conventional rather than push-pull tracks.

The passing, for legal reasons, of the Western Electric subsidiary, Electrical Research Products ("ERPT"), must also be chronicled.

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violet glow lamp known as the Linc-lite. This lamp, for variable-density recording, is constructed so that no physical slit is needed. The light source itself is of the requisite size and shape, and is imaged on the film as a fine line of light by optical reduction alone.

In addition to the advances in Technicolor processing and the revival of tinting and tinting as already noted, several important developments have occurred.

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A new instrument combining the functions of anemometer and light-tester has been developed by Art Reeves. This device, known as the Sema-tester, times its exposures by means of a pendulum, and meters the light through fixed diaphragms from a common light source with such accuracy that it can be used interchangeably as a light tester and as a practical anemometer.

The same manufacturer has introduced a moderate sized developing machine which may be used for either negative or positive film without re-threading.

Another laboratory achievement is that of two Hollywood firms—Smith-Noble, Inc. and the Danning Process Company—both of which are successfully duplicating 16mm. and min-

iature camera Kodachrome color film on a commercial scale.

Projection

In the professional field, the modernization of theatre projection has been furthered through the installation of new projectors with high-intensity lamphouses using "Suprex" carbons.

In the sub-standard field the arc recently made its bow in semi-professional 16mm. projectors in France, where Delebe has introduced a 16mm. projector for use in large halls and small theatres. This projector is equipped with a 15-25 ampere arc, 10-watt push-pull sound amplifier, and similar professional features.

It may be mentioned that in Europe 16mm. sound-on-film is reported as being in extensive use in small theatres, a use for which it often has been urged in this country.

In America Ampco recently introduced the Model "L" sound projector for audiences of 2000 or more. This projector is equipped with a 750-watt lamp, an efficient optical system, 55-watt amplifier, arms to hold 1600-foot reels, and a still picture device for educational use.

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SHOOTING WATERFRONT AS SHERLOCK DOES IT

Australian Has Had Abundant
Experience with Kodachrome

By JAMES A. SHERLOCK, S.A.C.

Box 1266 G. P. O., Sydney, Australia

FOGS, bridges, smoking tugs, cargo boats, coastal boats, dock-yards, ferries, overseas liners, sailing boats, wharves, pleasure boats, harbor lights . . . these are the things to film in a harbor picture.

Early morning fogs can be commenced half an hour before daylight if there is sufficient light. Your exposure meter and a fast lens will be necessary here. Take a trip on a ferry just before dawn on a foggy morning, include a C.U. of the lookout man on the ferry and shoot when you can dimly see such things as boats, harbor lights and wharves. As the fog commences to lift the sun can be seen struggling through the mist. Use a few feet of film here with the lens pointing straight at King Sol. You will get a pleasant surprise when you view your processed Kodachrome film. Finish this episode with some misted white cumulus clouds behind a bridge, wharf or quay-side. This can be done any time the clouds happen along, and it will then appear that they were the result of the fog. This subject is itself sufficient for a whole picture.

Bridges are best Kodachromed from the land about 300 yards back from one end and on the sunlit side. If the bridge does not open to let boats through wait till a boat goes underneath before filming. If it does open shoot about eight feet of film showing the nearly opened bridge. It is not necessary to film the whole sequence of opening.

Tags

Then cut back to the boat, keeping this boat in the middle of the picture as it moves toward the opening of the bridge. When it arrives these stop panning. After the boat slips through, a few feet of the bridge closing should be added before the fade-out. It is not necessary to show the whole opening and closing process.

Tugs look more businesslike when they are belching smoke, and the best shots are to be had aboard a tug that is helping berth a big ship. The crew of any boat will help a cameraman get his pictures, but he must keep out of their way when serious work commences.

If you have your choice of tugs

board the one that is to work on the bow of the ship. When the liner is sighted, erect your tripod in a position so that the hook to which the towline is to be attached is in full view. Then get a picture of the bow of the liner, its crew throwing the towrope over the side and follow this action till the rope is placed on the tug's hook and takes a strain.

Get some C.U.'s of the tug's skipper and his crew, the liner coming alongside the wharf, people waving and, lastly, the rope being knocked off the tug's big hook. If you have a wide angle lens you will have plenty of use for it aboard a tug.

Cargo and Fishing Boats

Coastal, cargo and fishing boats are really the lifeblood of a harbor. They bring food to feed the city. Show these by scenes of unloading at their wharves, as well as all sorts, sizes and shapes of craft unloading casks, cases and barrels; the wench man at work and the coys starting to move. Follow this through with a sling on the an till the load is landed on the

(Continued on Page 520)



Long shots may be made occasionally of a figure, tree or boat may be shown in the foreground. Photographed by James A. Sherlock, S.A.C.

NO EASY TASK TO GET RESULTS IN TITLING FILM

By CHARLES G. CLARKE, A. S. C.

AS winter days come around and picturemaking outside is curtailed, then the real days of making "pictures" inside begins. I do not mean the taking of interior scenes, but instead the important task of editing and titling the odds and ends of scenes made in previous years, editing and planning so that these scenes knit together until the final result is an entertaining picture.

Unfortunately, this is no easy task, because there is yet no practical device on the market to facilitate this important need.

Printed titles are so costly as to be prohibitive to the majority of cine users, yet, that others may fully enjoy our films, titling must be done.

Adequate explanations cannot be made to a group of chattering friends while the scenes are being screened, for usually the picture is gone before the commentator has an opportunity to get his word in. Besides, dates and even names are often forgotten after a few months have passed, and we fail to remember if it was in May or September that Baby took her first steps.

Most important to the flow of the picture narrative is the "bridge" between scenes that the title supplies.

Instead of having a series of unrelated scenes, the same scenes, carefully arranged and tided, appear to have a continuity of story.

Also, the sudden jar of different backgrounds and even unequal exposure is leveled when a title is placed between these contrasting scenes. Now that we agree that titling should be done, how can we best do it?

Uses Post Cards

Most of my films are records of vacation trips or of scenes made on "location" trips or of scenes made while on "location" in foreign lands. Keeping in mind how they would look as title backgrounds, I purchase post cards of the locality I have visited.

These always are horizontal views, as they fit the Bell and Howell title stand which I use.

Being poor at hand lettering, it was a stroke of luck when I discovered that small gummed letters were procurable. These letters can be bought in handy boxed sets of every letter and symbol ordinarily needed.

They are called "Wilson's Gummed Letters and Figures" and are manufactured by The Tablet and Ticket Company, 38 West Forty-fifth street,

New York. They can be bought in most of the larger stationary stores in your city.

Size "00" for lower case and size "0" for capitals are ideal for ordinary titles, while size No. 1 and No. 2 for main titles complete the assortment. The letters are cut from glazed white paper, and are ready to be stuck to the photo or post card. If the pictures are light colored or have white areas in them it is best lightly to spray a little black ink over them with a fine atomizer.

Obviously, well colored cards are ideal when photographed in color and cut into Kodachrome films. In making opening titles it is often desirable to have the same background appear behind the series of main and credit titles.

The titles dissolve over each other and the title and background fade-in and fade-out together. This can be done on any camera in the following manner:

On every roll of film there are perforated figures at the end of the safety-leader about five feet into the roll, marking the beginning of the exposable film. After loading the camera in the regular manner the lens is removed and the camera is run until the perforated figures appear in the aperture.

The counter is set at zero and the lens replaced to photograph the first title. As the camera runs, note the reading of the footage counter as you fade-in and fade-out. Let us suppose you have faded-in from 92 feet to 94 feet and have faded-out at 96 feet to 98.

Iris Attachments on Market

The fades are made by starting with the iris diaphragm of the lens completely closed and is gradually opened until the correct stop is reached, or for a fade-out the reverse maneuver is done. There are "iris" attachments on the market with which the effect of the picture closing down in diminishing circles is obtained.

Whenever of these methods, the camera is taken to a completely dark closet and the camera is opened, the film unthreaded and the exposed film



Making titles with the gummed letters.



Charles D. Clark, A.S.C.

wound back on to the unexposed roll, leader and all.

Now the light may be turned on and the camera is reloaded, the lens removed, and again the leader is run through until the perforated figures appear in the aperture. The footage counter is again set at zero, and with the lens diaphragm closed the film is run up to two feet before the second title should begin to fade-in.

In the above case that would be at 64 feet. The camera is set up before the second title and, everything being in order, the camera is started. For a good dissolve it is best to overlap the fade an extra foot, so on our second title we should start to open the diaphragm at 65 feet and be fully opened at 67 feet.

This procedure is repeated for each title in the series, carefully noting the reading of the counter for each fade, being careful also to reset the counter after each reloading, and having the lens closed at all times except when actual exposure is being made.

After the last title is made the picture background is then photographed. Again the film is wound back on to the starting reel, and the counter reset at the starting position. The background should be darker when used behind titles so we should use a full stop smaller than that at which the lettering was photographed.

Starting the camera, we begin to open the lens at 90, gradually opening until the correct stop is reached, the

camera continuing to run until the fade-out of the last title, or preferably one foot longer, as the white letters linger through the exposure longer than the under exposed background. Adding the extra foot makes the lettering and background disappear together.

White on Black

For the procedure I have just described white letters are used on black cards, and a plain picture is used, except the light portions have been toned down by spray or soft pencil. For trick introductory titles you can purchase a set of letters at the dime store, sold as "Anagram Sets."

Putting your stand in the vertical position, the letters are arranged so that the title is upside down to the camera.

In this position, run the camera for sufficient footage to read the title, then begin sharply to tap the title rack, knocking the letters into general confusion. After the film is developed and turned end for end you will find that the action is reversed and that on the screen the letters will maneuver into place in neat lines of the title matter.

Perhaps you have wished you could expose your titles over backgrounds in action. This can be done with suitable scenes from your library of films. Here again scenes should be avoided which contain white areas, or else the lines spaced so that they will not appear over such places. The first requisite is a frame to hold a small

piece of ground glass in place of the regular title card frame.

For my title stand, I bought an additional part, cut out the metal back, leaving only the frame to hold the fine ground glass which was cut to fit. Your projector is now set up so that it is in perfect line with the camera lens and center of the ground-glass.

The selected scene is projected on the glass from the back, and is focused from the camera side. As the shutters of the camera and projector will not open at the identical time if they are run in the ordinary manner, in order to have a uniform exposure it is necessary to obtain it in a roundabout manner.

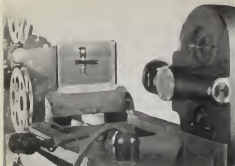
Projection Printing

The camera has been loaded with film that has been previously exposed to the title of white letters on a black card. The first frame of the scene in the projector is set on the ground glass, and one frame in the camera is taken, using the trip release. The hand knob of the projector is used to bring down the next frame of the scene, and a single frame picture is taken of it. This maneuver is repeated, frame for frame, until the required amount of footage is obtained.

As this is in effect projection printing, various uses may be put to this method for making dissolves, double exposures, split screens, etc. You may also project candid-camera scenes in black and white and color, and re-photograph them as title backgrounds.



Grounded letter title on picture background ready for filming.



Keen preparation for making titles with active backgrounds.

Moderate color effects in motion may be secured by reflecting prismatic bands and masses of colored light on the glass. Incidentally, I have built a small aquarium to fit the cut-out frame wherein are photographed tropical fish and natural history subjects in close-up.

All the above are ideas for the special titles, but a subject full of this kind of title would not only be expensive but unnecessary. As long as the subject matter remains along the same lines, I use a simple white letter on plain background title, using the picture background only at the beginning of new "chapters" where the locale, situation or time element changes.

For the ordinary sub-title neatly spaced typewritten capital letters on white paper are the best and simplest I know. Using positive film which costs only seventy-five cents a hundred feet, the developed negative is cut into the picture, thus rendering white letters on a black background. When you use negative, the usual fade-in and fade-out will no longer work, as if made in the usual way, the negative will start from clear film and darken as the title appears.

Of Titles No End

Instead, you must hold a white card before the title, and as the camera runs, withdraw it, which produces a "wipe" effect. Slide the card over again for the "wipe" out. Of course there are endless variations of making titles, using black letters, celluloid letters on grooved boards, etc., but unless one has a "special" camera or a slide over attachment for align-

ing the title, the results are uncertain. Now what to say on the title. That is a problem. Some are more clever than others, and for them it comes easy. For those less gifted the old rule "Simplicity is the watchword" is a good one to follow. The purpose of the title is to supply information that cannot be gained from just viewing the scene, who persons are, when anything happened, why and what are they doing it for. The interesting facts should be stated in as well chosen and as few words as possible. Remember how the National Geographic captions its pictures? There is a good example, the views apply but tersely explained, and usually with a sense of humor.

Your audience appreciates being entertained, and dull, tiresome pictures can be brightened by sparkling narrative. Avoid being critical or too witty, however, for a joke once heard loses its attraction, and after running it repeatedly we are ashamed of being its author.

Conveying Mood

Much can be done to convey the "mood" of the scene by the choice of wording. Some of the awesome, gripping grandeur of the Grand Canyon and Yellowstone can be conveyed to our audiences if we express that feeling in our titles.

As an example of the ability of titles to smooth over the sudden jumps in scenes, may I tell you of a case I had today? I am telling some pictures taken in Yosemite last Spring. At that time the mountains were covered with snow, but the valley, being 3000 feet lower, was clear

and as summery in appearance as if it were August.

I show a series of valley scenes and then jump up to Glacier Point in the grip of winter. Surely a contrast, but none the less a part of the record of Yosemite in Spring. To ease the jar I say:

"THE VALLEY IS FREE FROM SNOW, BUT THE HIGHLANDS ARE STILL WINTER-LADEN." Not an especially clever title, but the audience is prepared for the white scene that follows. Endless examples will occur in your pictures where a title will preserve the continuity from the preceding scene to one totally different that follows.

And by the way, writing titles is a liberal education in grammatical construction, punctuation and spelling. I surround myself with dictionary and Thesaurus and wish that I had been paying attention in school instead of doing whatever it is that boys do during class.

Agfa Issues New 35mm. Ultra-Speed Pan Film

THREE times faster than regular high speed films of the "super" type heretofore supplied, a new 35mm. film, Agfa Ultra-Speed Panchromatic for miniature cameras, is now being manufactured by Agfa Anson Corporation in Binghamton, N. Y.

Although improvements in film sensitivity have in the past been made a small amount at a time, the increase in light sensitivity of this new film is of such magnitude that exposures may be made with 1 1/2 lens stops less exposure than was formerly necessary. Combined with its phenomenal high speed, Agfa U.S. Pan film has excellent keeping qualities and wide latitude.

Agfa Ultra-Speed Panchromatic will prove ideal for stage photography, candid camera work and other conditions requiring maximum film speed. The film is available in a new, reloadable type, 36-exposure daylight-loading cartridge or spool. Also it will be supplied in a 15-exposure darkness loading length for all 35mm. cameras; in 27 1/2-foot and 55-foot containers of film notched and tongued for easy division and darkness loading in 36-exposure lengths, and in 100-foot lengths of unnotched film.

Issues List 1137

Willoughby's, at 110 West Thirty-second Street, New York, has issued its Bargain List 1137, describing new, shopworn and used cameras, lenses and accessories for sale. Several hundreds of these are listed.

WALTER BELL COMPLETES 8mm. REVERSAL MACHINE

IN a recent article we described an automatic machine for the processing of 16mm. reversible amateur film which was designed and built for a local laboratory. We have just had an opportunity to see in actual demonstration another machine built on the same principle, and by Walter W. Bell, the same man, but for use in processing straight 8mm. reversible film.

This machine we predict will be the

forerunner of many more machines that will take their place in the small and large laboratories of the country for the mechanical processing of this new and popular sized amateur film.

The entire unit is compact, taking up a space less than ten feet in length by 15 inches in width. It is so constructed that all accessories are an integral part of the machine and with the developing tanks and drying cabinet are mounted on one frame.

Due to the extreme narrow width of this type film it has been considered nearly an impossibility to design a machine that would handle this size film through all the solutions that are necessary for the reversing of amateur film without breakage, but apparently Designer Bell has overcome this stumbling block.

At a demonstration given the editor it was shown the machine is fully capable of running film through without tension at any point and also that it is fully capable of compensating for automatic stretch and shrink to which the film is subjected during processing and drying.

Builder Demonstrates

Mr. Bell demonstrated these features by deliberately stopping the film at the drying cabinet while the machine was still in motion, thus throwing a surplus of loose film in the machine.

Immediately this slack would be transmitted through the machine to the feed-in reel, which would stop long enough to take it up, following which the tension again would be normal throughout the entire mechanism.

The builder likewise demonstrated that by even putting excessive drag on the film at the feed-in end it would not tighten up the film in the machine at any point other than the first loop or so over the immediate rollers at the feed-in end.

This machine, like previous 16mm. models he has built, drives the film by means of the bottom rollers. At no place throughout the entire machine does the emulsion side of the film come in contact with any surface.

The total thread-up is approx-

imately 850 feet of film and the machine will accommodate 2000 foot feed-in and receiving reels for the finished film. It has a capacity completely to process, polish and dry 1200 feet of 8mm. film an hour and one or more machines can be operated by one man, since all the attention necessary is to change film reels every 2000 feet, which may be done without interruption of operation.

The entire mechanism in the devel-



At left, upper, showing the top rollers and main line drive shaft in the developing end of the machine. Lower, same shows line of the ten tiers of bottom rollers fitted from the developing tanks.

At right upper, showing front view of the drying cabinet with glass doors removed. Lower, showing rollers which take slack film from dry box and take up over that reverses film.

oping end is made of rust and acid proof stainless steel, while the drying cabinet is of metal construction covered with three-ply veneer. All main frames and other metal parts are of Dural metal, while all drive shafts are carried on precision ball bearings.

Air Conditioned

The air conditioning unit for drying the film is directly connected to the drying cabinet and furnishes ample warm air to dry the film properly. Since the air is drawn through a special design of glass filters there cannot be any dust or dirt transmitted to the film during drying.

In the developing end there are ten separate compartments or tanks to accommodate the various solutions as well as different washes that are necessary for the reversal process. The time in each of these solutions and the chemical process set up is such as to give the best results in the finished film. These standards have been set up after careful research and in cooperation with the manufacturers of Koda, reversible film.

Mr. Bell states that a machine of this capacity is well within the reach of even the smaller laboratories which now are finishing 8mm. reversible film by the hand method, and that the

saving effected in labor, space and chemicals, to say nothing of the superior results in processing, should quickly pay the initial costs of the machine.

Due to the extreme simplicity of this unit it can be put in operation immediately by any laboratory technician, even without previous experience in the operation of automatic developing equipment. The units are so designed that upon operating they can be in full operation within a few hours after receipt from the factory. The only work required to install is the connection of water, drain, warm air outlet, and electrical hook-ups.

HERE'S THE ANSWER

LAP DISSOLVES

I have a 9.5mm. Coronet constant-speed camera. I find my pictures, when exhibited, seem monotonous, owing to the fact that it is impossible to bring about lap dissolves as in professional films. My interest in professional work has made me keen whenever possible to duplicate professional effects. Could you help me to do this?—H. D. D., Waverley, N. S. W., Australia.

The 9.5mm. standard is virtually unknown in this country, so these suggestions must be based on experience with 16mm. and 8mm. rather than with 9.5. Fundamentally, the real answer to your question is that you can't get professional effects without professional equipment, or at least a semi-professional camera like the (16mm.) Cine-Kodak Special.

Speaking practically, however, there are some ways of getting around the limitations of strictly amateur equipment to a greater or lesser extent, depending upon the capabilities of the equipment you use, and upon your own patience and skill.

If, for instance, you use negative-positive film rather than reversal, you can make lap dissolves quite easily in the printer. This is of course done by overlapping a fade-out and a fade-in, usually by stopping the printer when the first scene has faded completely out, rewinding the positive to the point where the fade started, and then continuing to print from the negative of the second scene, beginning of course at the start of its fade-in.

These fades can be made either in the camera or, after the negative is developed, by chemical means. The same technique applies to making "wipes" and similar transitions on the printer. This can be done with the aid of photographic matrices.

There are also some ways of making lap dissolves on reversal film. Several 16mm. cameras either have or can be fitted with a hand-crank mechanism which permits winding back at least enough footage for a dissolve.

There are at least two films in this country which have devised back-cracking attachments for 8mm. cameras as well. It is possible such a device might be built on to your 9.5; we cannot state this positively, of course, as we are not familiar with the camera. In such an event making lap dissolves would be simple.

If your camera uses regular spools of film, or if you can open the charger or cassette to rewind the film in the darkness, you can manage fair dissolves by making the first scene and fading out normally.

Then you may do one of two things: either rewind immediately or else place the lens cap on the lens and run through the footage that will be required for the second scene of the pair, after which you can finish the roll normally, and then rewind either to a marked starting point before the start of your first scene or clear to the beginning of the roll.

Now run off the film, with the lens tightly covered, until your footage dial tells you you have reached the point where you started to fade out on the first scene. Uncover your lens, and make the second scene, beginning of course with a fade-in.

The chief difficulty of this procedure is of course synchronizing the two fades that combine to make the lap. Rewinding to the start of the roll, and thereafter counting your footage from a marked frame which must be in the aperture, you should not have too much difficulty in this, provided your camera's footage counter is reasonably accurate.

Another method, which helps minimize errors introduced by the rather inaccurate footage counters with which most sub-standard cameras are equipped, is to use a changing bag such as still photographers use.

In this you can, before shooting the first scene, notch a starting mark in the edge of the film and then later, rewinding in the changing bag, bring the film back to that easily found mark, and work onward to your second scene.

Much of the difficulty of rewinding is, of course, eliminated when using double-run 8mm. cameras, with which it is only necessary to run the film through the camera four times instead of twice, and to watch the footage dial very carefully.

Such special effects scenes are easiest if made at the start of either the first or the second run. Many 8mm. amateurs have by this method made not only lap dissolves but double and triple exposure trick shots.

WILLIAM STULL, A.S.C.

German Film Attendance

According to recent estimates, there are 46 million persons living in towns which have motion picture theaters. Of these, excluding children under six years of age, 42.5 million are possible visitors to motion picture theaters, or 32 million, if those under 15 years and above 65 years are deducted.

The seating capacity of all motion picture theaters amounts to 1.9 million. Taking into consideration that those cinemas playing daily give fifteen shows a week, on the average, and that those cinemas which do not play every day average three shows a week, there is a yearly seating capacity of 1,049,381,000. Actual attendance came to about 364,600,000 during the last season.

*No one knows
better than you*

**THE THRILL OF
MOVIES ON
CHRISTMAS DAY**

YOU know how much pictures mean—how interesting it would be to start a movie diary at Christmas. Some member of the family—some valued friend... could ask, and you could give, nothing finer than movies with Ciné-Kodak.

It need not be an expensive gift. It's getting started with a good camera that counts, and \$34.50 will do the trick with Ciné-Kodak—the camera every one recognizes as the quality standard. And, teaming up with Ciné-Kodak for brilliant movies, Kodascope, the Eastman-made projector, offers the same wide selection—at prices from \$26.

All Ciné-Kodaks make color movies

There's little to choose between the several Ciné-Kodaks on the count of dependability. No corners are cut to meet a price. All are built to make good movies, simply. All take movies in full-color Kodachrome as well as in black-and-white. Prices advance with "faster" lenses, greater versatility.

So check your Christmas list against the cameras shown at the right. More than a gift will change hands when you give a Ciné-Kodak this Christmas.



Ciné-Kodak
Bagley, Model 20,
f 5.5, \$19.50.
Model 23, f 2.7,
\$35.00.

Ciné-Kodak
Bagley, Model 40,
f 3.5, \$19.50.

Ciné-Kodak E,
16 mm., f 3.5,
\$25.50.

Magazine Ciné-
Kodak, 16 mm.,
f 3.5, \$125.00.

Ciné-Kodak K,
16 mm., f 3.5,
\$38.50.

Ciné-Kodak
Special, 16 mm.,
f 1.9; Bagley
on request.

EASTMAN KODAK COMPANY, Rochester, N. Y.

FORD DESIGNS MOBILE PICTURE POWER TRUCK

A NEW mobile motion picture and photographic power truck, capable of producing 40,000 watts of power for lighting purposes, has been developed and placed in service by the photographic department of the Ford Motor Company.

Developed principally for motion picture or other camera work under adverse lighting conditions or for night work, the new unit carries complete power and lighting facilities for taking pictures or for projection work as well as with still cameras, motion picture cameras, sound projectors and sound amplifiers.

In locations miles from electrical current the unit can provide adequate lighting power for making pictures or power for projecting moving pictures.

Power is generated in a compartment housing a motor generator set consisting of a Lincoln-Zephyr V-12 engine connected by direct drive to a 40-kw generator at 115-volts. There is a governor control to keep a constant speed of 1800 rpm.

Some of the many combinations possible with the new unit describe its flexibility. The unit crew can run one 5,000-watt Klieg lamp 650 feet from the generator or a cluster of six

5,000-watt Kliegs can be used 600 feet from the unit or a combination of six 5,000-watt Kliegs, two 1500-watt floods and one 2,000-watt rifle and four banks of two each No. 4 photo flood lamps can be run 150 feet from the unit at approximate voltage of 145-150.

Plenty of Cables

In the motor generator compartment are two cable drums for 200 feet each of 4-wire of No. 8 heavy duty super-service cable (with two wires connected in parallel) to give greater electrical carrying capacity with less physical size.

The drums are fed from the generator's distributing panel through an external female heavy duty plug, which connects to a male plug installed inside of the drum, which is, in turn, connected to the terminated end of the cable on the drum. There is a safety belt which can be inserted to stop the drum from rotating after the desired length of cable is determined.

Carried in the truck are two 100-foot and two 50-foot heavy duty feeder cables to be used as extensions from the drum cables or can be used from any other source of electrical

current in places where the truck cannot be used.

A compartment installed underneath the floor of the motor generator compartment on each side of the truck is constructed as a drawer that can be pulled out for easy loading and unloading of coiled lateral cables consisting of fifteen 50-foot lengths of No. 12 super service cable.

Internal swinging doors at the rear of the truck open into the compartments housing the lateral distributing boxes and cables. There is a two-inch wooden roll to permit frictionless loading and unloading of cable. A slot in both internal and external doors permits taking cable out of compartment with doors closed in bad weather.

Another compartment behind the cab of the truck houses motion picture and associated equipment as well as photo-flood and photo-flash lamps, spare lamps for Kliegs, spare fuses, all electrical equipment, light reflectors and diffusers and "high-hat" tripods and sound projection equipment. This compartment carries all miscellaneous equipment required for field work and can be used as a field dark room for emergency loading of plates and magazines. All compartments are accessible from both sides of the truck.

Install Lamps on Rail

On top of the truck is a two-inch wooden lattice platform for good tripod setting in any position. This is completely surrounded by a 1½-inch chrome pipe railing supported by ten standards which also are used for standards for Klieg lamps. In the motor generator compartment a rack carries Klieg light extensions so lamps can be installed in the railing standards by removing the knobs on the platform top railing.

These consist of four one-foot, three two-foot and two four-foot extensions. Klieg lamp tripods are carried on the top platform.

A folding platform supported from the bumpers and fender supports in front of the truck is used for making camera shots when the truck is moving. This is capable of holding a weight of 600 pounds.

A water and dust proof compartment welded in one piece is situated



New mobile power truck, designed and used by photographic department of Ford Motor Company. Truck carries all necessary equipment for field work.

(Continued on Page 321)

LITTLE'S FILM EVENINGS HAVE AUSPICIOUS START

To be Held Once Every Month Including
May and Drawing on World Material

THE first two of a series of eight Motion Picture Evenings, sponsored by Duncan MacDi Little, have passed off with success. The dates of these were October 23 and November 26. The showings were held at the Little's home, in 31 West Sixty-seventh street, New York. At the first there was present an interested audience of ten or fourteen with the "staff" included.

The second of the subscription evenings the attendance was larger than the first, with indications that before the end of the series the entertainments will be self-supporting and that among the features will be heard on film subjects. There are several on which Mr. Little has his discriminating eye. The series for 1937-8 will close May 7.

The programs are not restricted to amateur subjects, as an examination of the screenings will indicate. In fact, there seems to have been more from the professional side of the industry than from the amateur. Los Angeles was represented on the amateur side the second evening by two contributions from Dr. Roy E. Gerstenkorn, "Japan and Its People" and

"Oriental Wonderland." The latter is the story of a steamer trap 1600 miles up the Yangtze, reviewed in last month's issue of this magazine.

Surely it will interest all lovers of motion pictures to examine the selections Mr. Little will make for screen material to entertain for two evenings, especially when it is borne in mind that for all practical purposes the product of the world in a film way is to be found in New York.

Chaplin's "Vagabond"

The program for the first evening consisted of three subjects. They were "Historical New Jersey" (two reels), by Frank Denmore of Hackensack, N. J.; "The Vagabond," a Mutual production featuring Charlie Chaplin, and "The Lost World," a First National picture from a story by A. Conan Doyle, and featuring Beanie Love, Lewis Stone, Lloyd Hughes and Wallace Beery.

This old-timer of a dozen or more years past still carries interest and thrills and the model work, depicting the prehistoric marauders, is realistic and in many instances quite convincing.

As is usual with "Little Shows," all films were set to music, and again an audience was amazed by the talent of Elfrude Boerner, who had never before seen Denmore's "Historical New Jersey," and had but once viewed the two other pictures.

"The Lost World" provided excellent opportunity to bring to use much of her beloved Wagnerian music, which undoubtedly heightened the interest of the film.

The program ran true to schedule, for with five minutes between pictures, and a total of nine reels, the screening was ended and the lights "on" at just 11 o'clock. It was smoothly done; and as is the custom, when the end came, the only reel needing rewinding was that one just finished, and still on the projector.

Two projectors were used and the music was provided by means of a cleverly concealed set up photograph with double turnables and loud speakers concealed in the wainscote below the screen.

Two Los Angeles Films

After screening, refreshments were served and general conversation ensued.

The program for the second evening was of six subjects and of wide variety, ranging in period from the inauguration of President McKinley to scenes in Shanghai as late as last August and September. The program in detail consisted of:

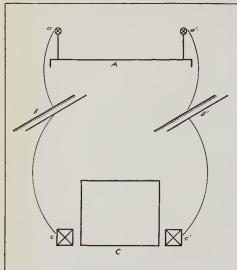
"Old Time Movies," from the inauguration of McKinley through 1914, a Castle Films release; "Swiss on White," featuring Sonia Henie, distributed by Nu-Am Films; "Japan and Its People," made in 1933 by Dr. Roy E. Gerstenkorn, a Los Angeles amateur of note; "Oriental Wonderland," the gorges and rapids of the Yangtze, also made in 1933 by Dr. Gerstenkorn, this and the preceding film being exhibited by courtesy of the maker.

"News Parade," scenes in Shanghai, photographed in August and September, 1935, a Castle Films release. "Bill," an adaptation of Anatole France's "Crainquebille," Independent production.



Photograph submitted by Laurence Peters to Fourth International Lary Exhibit in which we will suggest a title: "Power and Robinson."

Scheme of the production of stereoscopic sound. A, Fixing place in a studio. B, (a) Left microphone, (b) right microphone, sound is recorded on separate sound tracks. (c) Left phonograph, (b') right phonograph, (c') screen in the cinema, (C) screen in the cinema, (c) left group of loud-speakers, (c') right group of loud-speakers. Left sound film is reintroduced through a left lead-speaker and right sound film through a right lead-speaker.



Sound Working in New Stereoscopic Pictures

(Continued from Page 520)

the is required for us to perceive a two-dimensional image as a three-dimensional one!

It appears first of all that stereoscopic pairs can be selected not only from among photographs taken with a camera in movement. Providing the general background photographed be more or less stationary, it is sufficient if any kind of object be moving smoothly.

In this case also the fifth or sixth frame produces a stereoscopic effect. Besides not only this object will appear stereoscopic in effect, but the entire setting will very effectively dissolve into a number of perspective planes.

Among the frames collected there is one pair which has the trade mark "Pathe System" on the edge of the

film outside the perforations. Film manufactured in pre-war days was given this trade mark. It is known that photography with movement did not exist in those days.

Relief Formed

This means that the photographs were taken in the usual way from a fixed position. When the photographs were taken there was no wind. If one frame be superimposed on the other, then the images of the leaves fully coincide with each other. Yet when looking at this pair of frames through a stereoscope, an excellent relief is formed.

The whole secret is that the couple walking in the garden shifted slightly. This proved sufficient for the eye to perceive in three-dimensions not only the walking persons but also the

background and the leaves in the foreground.

Because the human eye is most accustomed to perception of space, it is most inclined to perceive an image as spatial, or three-dimensional. The eye itself is apt to be deceived and the task of the motion picture inventor is simply to find that threshold of perception, those new conditions which in their time were so happily discovered when the moving image of two-dimensional motion picture projection was invented.

Kaufman has two frames photographed with movement of a model mountain which was deliberately and carelessly made. And what do we get? When this pair is selected for showing the very best stereoscopic is obtained, an impression is so vivid, that the model seems to be some kind of colossal decoration, or mountain, anything except the modest structure which was erected on an ordinary chess board at the time the frames were photographed.

What an abundance of interesting opportunities this unfolds before all forms of cinematography.

Though many notable persons of history have been photographed for the motion pictures, they were not photographed specifically for stereoscopic pictures. Yet if while being photographed they made but one smooth movement, their image could now be restored in relief.

Finally, if you yourself were photographed for motion pictures some time long ago, then by utilizing scraps of film of which you have grown tired you now have every opportunity to make a stereoscopic portrait of yourself in your youth.

Ford Designs Truck

(Continued from Page 522)

under the equipment compartment for protection of expensive motion picture tripods. If the generator is in use while the truck is in motion, a small door is opened to cool the generator and keep it from becoming overheated. There is a locking device to keep the door open. The door cannot close to less than a seven-inch opening without disconnecting the ignition system and shutting down the motor-generator unit.

The truck is built on a 157-inch standard Ford V-8 chassis with an aluminum and steel body hand-built in Ford shops. The truck fully loaded weighs approximately seven tons and has a speed of 55 to 60 miles an hour using standard truck transmission and rear axle.

WINTER INC. OPENS UP TO DATE STORE

DESIGNED along lines that best may cater to tourists as well as residents of a large center of population, a photographically minded population, the new retail store of Winter Inc. has completed its first quarter in business. The enterprise has been a success from the start.

Its location is in the business center of downtown Los Angeles, at 828 West Sixth street. The partners conducting the store are William J. Winter and H. W. Scarborough. Mr. Winter was for twelve years with the main Eastman Kodak store in Los Angeles as assistant manager, having conducted a store of his own in Portland, Ore., prior to that.

Mr. Scarborough has been in the photographic business for a half dozen years, in that period having had an unusually wide experience. His introduction to the craft was in the training department of the Eastman Kodak Company in Rochester. From there he went to Pittsburgh and then to the San Diego fair. From there he was assigned to Los Angeles, where in the Hill street store he was associated with his present partner, Mr. Winter.

Convenience for Customers

Several factors have contributed to the marked success of the new store. In the beginning the partners frankly confided their ambition was to establish one of the finest photographic stores on the coast. Aside from their intention to install a full complement of still and motion picture equipment they planned to give their customers a "dated prints" service.

In other words, it was the intention

of the new owners to indicate on the back of every print the date on which the work on it was completed, so that in later years there would be no difficulty on the part of the customer in establishing positively the exact day on which he and perhaps his family were in a certain location. The plan has proved of real popularity.

Other steps have been taken by the new company which may have real interest for those conducting photographic stores. This is in the department of dark rooms and projection rooms.

There are two model dark rooms, each 8 feet by 8. They are, as is the projection room, air conditioned and fully equipped in every detail—such a plant, in fact, as would be installed in a home by a man commanding sufficient means to procure what he wants.

One is set up for still negatives, that is, from 2½ to 3½ up to post-card size. On the ledges, conveniently placed, are printers, enlargers, trays, etc., suitable for prints from these negatives. The second darkroom has equipment accommodating all the 35mm. and miniature negatives and contains enlargers of various makes, developing tanks, trays and sponges.

Both of these dark rooms have sinks with running water. The rooms are rented by the hour or day and also are used by the house for demonstration and sales promotion.

It may interest other dealers that while of course there is no way of tracing the amount of direct sales of extra equipment to these dark rooms

the firm has a feeling approximately \$2000 a month may be credited to the contact and the good will flowing from these two 8 by 8 foot rooms.

Tourists have been particularly outspoken in their appreciation of the conveniences provided by the plan. The results have not been restricted to the tourists. Possibly a dozen of the rooms have been installed in the homes of comfortably situated followers of amateur photography.

Agfa Opens Florida Lab

Amateur movie makers living in the Southeast, and the many visitors to Florida and Southeastern states this winter will be glad to know that faster processing of their amateur motion picture film has been made possible by the opening of an up-to-date processing laboratory at 121 John Street, Jacksonville, Fla., by Agfa Ansco. This laboratory, the most recent addition to the group of processing stations which service users of Agfa reversible motion picture film, has been constructed with great care to give rapid yet thorough service.

One-day processing service will be given in Jacksonville on all Agfa 16mm. and 8mm. Reversible Films.

Propose Government Prizes

Legislation has been proposed in the Argentine Chamber of Deputies which would establish permanent annual prizes, to be paid by the Government, for various types of Argentine pictures. The sponsor of the proposed law is Deputy Marcelino Rayan, who has stated that the selection of the best films should not be hampered in any way by ownership considerations.

There is to be a first prize of 30,000 pesos and a second prize of 15,000 pesos for the best "outdoor" picture exhibiting the natural beauties of the country or customs of the people.



Entrance of the new Sixth street store of Winter, Inc., in Los Angeles and a view of the store as seen upon entrance. Air-conditioned dark and projection rooms are in the rear.

Notes of the Movie Clubs

Los Angeles 8mm

Under the direction of Dr. F. R. Loscher, the meeting of the Los Angeles 8mm Club, held in the Auditorium of Bell and Howell, 716 North La Brea, on November 10, 1937, passed into the history of the club as one of the most entertaining and important meetings of the year.

Earl Bell, Dr. Charles F. Nedelman, R. M. Stern, H. M. Shiley, Miss Dona Lee, Jack Schenk, Claud T. Smith, Mrs. C. H. Taber, J. H. Brutsche and D. D. Layman were elected members of the organization.

An announcement was made by President Loscher calling attention to the fact that tickets were available to the third annual Club Banquet to be held at the Victor Hugo on Saturday night, December 11, and must be purchased on or before December 8. Tickets are \$1.50 a plate.

The secretary was called on to read correspondence received from various points on queries regarding 8mm equipment, proving that our club is known all over the world.

Members were reminded the banquet held in December was also to take the form of our final contest of the year and members were urged to have a film ready by December 2 for judging.

Going to the tremendous increase in membership of late, President Loscher announced the membership to the club would temporarily be closed.

The surprise preview of the evening was next shown—a kodachrome picture filmed by William Stull, A. S. C., honorary member, showing the various types of railroads. This picture, which is to be sent to England, proved to be of great interest.

The 1937 annual nominating committee having selected nominees for the various club offices for 1938, members were requested to cast their votes in the foyer during the intermission. After a check and double check by the voting committee, C. G. Cornell, chairman of the News Items of Interest Committee, was unanimously elected as the new leader for the ensuing year. For vice president, Dr. Jack H. Taylor accepted the office and the ever important office of secretary is to be ably filled by Ben Vogel. Bill Wade was selected for the trusted custodian of the treasury.

Following the election we were privileged to view a 2000 foot picture of the British Isles filmed by a past president of the Los Angeles Cinema Club, Fred Champion. The film was illuminated by injected remarks over a microphone by Mr. Champion. Very few of the sights and pleasures were overlooked at the historical coronation or the rest of the trip, which took us to Scotland, England and France. We deemed it a special privilege to have been able to view this outstanding film.

M. R. ARMSTRONG, Secretary.

Cinema Club of the Oranges

AT A special meeting held for the purpose, the Cinema Club of the Oranges screened the winning film of the New Jersey amateur motion picture contest. This annual event is

sponsored jointly by the club and the Newark Sunday Call.

The awards were: First, "Vacation by the Callen," William J. Murphy; second, "Six Gun Justice," Vernon Lewis; third, "Girdled Galaxy," Dr. Nelson W. Lockwood; honorable mentions, "Nature's Floral Symphony," Ralph Perkinpine; "1500 Miles through Historyland," H. E. Shannon. These constituted the projection program.

Albert E. Born, president of the Newark Cinema League, representing the Newark Sunday Call, made the awards to the prize winners of \$50, \$20, and \$10, respectively.

All other films entered in the contest will be screened and critiqued at the November meeting of the club.

The December meeting, or Ladies' Night, will be held at the home of William T. Vanderlopp, club president. Selected films of members will be screened, followed by refreshments.

At the annual election the following were chosen: President, William T. Vanderlopp; vice president, Warren E. Matthews; secretary, William J. Murphy; treasurer, Leo E. Leisher.

Inquiries concerning membership should be made to the membership chairman, Dr. Nelson W. Lockwood, 140 Prospect St., East Orange, N. J.

TO OUR ADVERTISERS

THE AMERICAN CINEMATOGRAPHER announces that beginning with its January issue it will be increased in size from 8 by 11 inches less trim to 9 by 12 inches less trim.

The type columns will be lengthened to 10 inches. This of course will be exclusive of the usual 2 pages allotted to the running folio.

The columns will be widened from 13 picas to 14 picas (2½ inches).

The page width will be increased from 41 picas to 44 picas (3½ inches).

We are convinced this increase to a more standard magazine size will give our advertisers, especially those using larger space, better opportunity to tell their story and at the same time in some instances will mean definite economy for them through avoidance of having made special plates to fit our columns.

This is the first time in the seventeen years of its publication The American Cinematographer has changed the size of its page.

Charles G. Clarke, A.S.C., Entertains Par Movie Club

THE Paramount Movie Club held its November meeting in Projection Room 7 on the 11th. President Cornell announced the rules of the coming club contest. The feature of the evening was the showing of 16mm. films by Charles G. Clarke, A. S. C., both in black and white and in color, he had exposed in the Yellowstone, Yosemite and in Mexico.

It was a return engagement on the part of the professional. As in the first instance, the entertainer employed a musical accompaniment, which again added to the thorough enjoyment of the show.

The Mexican film was of unusual quality in its revelation of the life and customs of the people of the country. An example was the filming of a bull fight, in which the technique of the "sport," or the approved routine through which the participants proceeded in the killing of the bull,

was explained and demonstrated in action and in titles. It was all of rare interest.

One of the unusual phases of the showing was the opportunity afforded to note the marked advance in the Kodachrome of today over its predecessor of but a comparatively short period ago—"about as fine as can be now," as the cameraman expressed it.

Indianapolis Will Hold Two Meetings Each Month

Organized last summer, the Indianapolis Amateur Movie Club moves into the fall season with a schedule of two meetings a month, the first and third Wednesday evenings. These are scheduled for the Claypool Hotel.

The club's announced purpose is "for the promotion and encouragement of amateur moviemaking through education, discussion and constructive criticism."

The officers are John R. Fash, president; Dr. D. A. Musselman, vice-president; and Alfred F. Kaufman, secretary-treasurer. The directors are the foregoing and H. B. Burbin, James N. Genders, Bernard S. Gross, Chester W. Hutson, and Jack Messmer.

Philadelphia Cinema Club

THE November meeting of the Philadelphia Cinema Club was devoted entirely to a review of the members' films offered in the vacation contest. The meeting was restricted to members only, 45 being present and voting.

The new rating sheet was seen for the first time, and worked out advantageously. In the order of awards the films and authors were:

"Idle Days," A. L. O. Busch; "Grand Canyon," George Pittman; "The Least of Threes," R. W. Bugbee; "Hykes Hellborn," Mrs. Adelaide Hykes; "Autumn Painting," Dr. Bowersex; "Lure of Northlands," F. N. Hirst; "Yeemite," Dr. Hykes; "Autumn Gold," the Rev. Mr. Vandenborch.

It will be noted the great majority of the films as evidenced by their titles were based on outdoor color. All the films were in Kodachrome, and it so happens that for the first time there were more 8mm.'s offered than 16mm.

The film entitled "Hykes Hellborn," while in fourth position insofar as general average were concerned, was probably the best offered on the basis of actual story and the fact it was partly taken indoors and partly outdoors. The handling of the colors and the balance of colors was very well done in this film.

The excellency of photography, the almost perfect settings, the handling of titles and the general excellence

of cutting put the films in first, second and third place far above the others in these counts.

The members present were really impressed at some of the grandeur that developed in these films. Compared with the efforts of the members when the club first started it is evident much has been learned, and that there has been considerable development in the art of amateur photography.

B. N. LEVENE,

Chairman Publications Committee.

Honolulu Club Growing

The Honolulu 8mm. Movie Club is an established institution, having now been organized for three months. Victor E. Clark, secretary-treasurer, reports that for the first two meetings about twenty persons attended. The other officers are Francis C. Williams, the prime mover of the enterprise, president, and Harry H. Hatchinson, vice president.

Meetings are held the first and third Tuesdays of each month at 7:30 p.m. in Central Y. M. C. A.

Tourists visiting the islands who also are amateur photographers are invited to attend meetings and to write the secretary through Box 2781, Honolulu, for information. Visitors possessing films that may be of inter-

Color an Advantage Shooting Steel Mills

(Continued from Page 346)

some of the rushes of this film have become enthusiastic over the idea of making a dramatic film, also in color, of similar subject-matter.

Such a film offers excellent possibilities for drama, even if strict truthfulness requires the elimination of many of the stock conceptions of steelmaking and steelmakers which have been used so often in film fiction.

Such a film, done in color, certainly would offer a cinematographer enrichable opportunities for pictorial effect in that connection, too, there is the added advantage of working in color in Technicolor's system of recording all details of how every shot is made.

The data gained making our scenes would be at the disposal of any cinematographer assigned to such a film in the future. With it, and with the reassurance of the standardized efficiency of the modern area we used for Technicolor lighting, technical problems would be minimized, and the cinematographer could be free to concentrate on bringing out the immense pictorial possibilities opened to him in filming this unusual subject in color.

est to the members are invited to bring them along.



Phantom of the Desert

When an amateur photographer recorded better than he knew—in fact, he didn't know what he had until his original 2½ by 3½, was raised to 5 by 7. Then he saw the phantom, if a phantom may be seen, rising that cloud over Mojave Desert that November Sunday—a glorious view that had inspired him to stop his car and collect a pale imitation of it. The picture was taken from the highway south of Mojave. The phantom is just over Goldwater, the gold mining community near the desert town. By the aspect of that right eye the owner may have noted the minor camp the night before. Photographed and copyrighted 1937 by George Blomstedt.

SANTA STARS IN CHRISTMAS CONTINUITY

PRACTICALLY all of us make Christmas movies. But most of them, after they've been shown a few times, grow as uninteresting as last week's newsreel, and land on the shelf. The trouble is that most Christmas movies are, like newsreels, made as "spot news" subjects, and contain little to give them lasting appeal to audiences.

That appeal can be put into them with surprising ease. Here, for example, is a simple continuity built to expand an average family's Christmas news film into a story. These additional scenes won't add greatly to either the film footage or your filming problems, but they add a touch of story to your routine holiday scenes and embellish the result with camera trickery that will interest any audience.

Adapted to Family

The exact details of the story are of course intended to be adapted to the individual requirements of the family making the film, and many changes can be made without weaken-

ing the basic idea of making the holiday film a photoplaylet.

Main title: "Santa Comes to the Smith's."

Sc. 1—Close-up of calendar, reading "December 24."

Sc. 2—Close-up of clock, pointing to 7 o'clock.

Sc. 3—Longshot of front door, from inside. The door opens and Father comes in. He carries several bundles, and is obviously very tired. He looks carefully around.

Sc. 4—Medium longshot of a hall door. Mother looks through, and nods.

Sc. 5—Night effect close shot of Junior, in bed and asleep.

Sc. 6—Same as Scene 3. Mother enters from beside the camera, and takes Father's parcels, while he takes off his coat.

Sc. 7—Close-up of Father. He speaks.

Title—"Just a cup of coffee while I rest a minute. Then I'll decorate the tree."

Sc. 8—Same as Scene 7. Father finishes speaking.

Sc. 9—Longshot in living-room. Father enters, picks up the paper and sits down in a chair by the fireplace.

Sc. 10—Close shot of Father. His newspaper drops, and it is seen he is drifting off to sleep.

Sc. 11—Longshot of the fireplace. Father, asleep in his chair, is seen at one side. Suddenly, directly in front of the fireplace, Santa Claus appears.

Sc. 12—Close-up Santa. He looks around and sees Father.

Sc. 13—Close-up of Father, sound asleep.

Sc. 14—Same as Scene 13. Santa nods, smiles, and looks toward the other side of the room.

Sc. 15—Longshot of the place the Christmas tree is to stand.

Sc. 16—Medium shot of Santa. He reaches his hand toward the spot shown in the previous scene and makes a mystic pass.

Sc. 17—Same as Scene 15. Suddenly a Christmas tree, not decorated, appears.

Sc. 18—Longshot, from near tree. Father and Santa are in background. Santa walks toward the camera, obviously studying the tree to decide how it should be decorated. As he gets close to the camera he reaches forward and makes another mystic pass.

Sc. 19—Same as Scene 17. One by one the decorations suddenly appear on the tree. The scene continues until the tree is about half decorated.

Sc. 20—Close shot of Mother's feet approaching along the hall.

Sc. 21—Close shot of Santa. He looks up, hears the footsteps and disappears.

Sc. 22—Longshot, past Father toward the door. Mother enters with a cup of coffee. She sees Father asleep, and tipses to leave the cup on the table, then tipses out.

Sc. 23—Same as Scene 21. Santa suddenly reappears and turns back to his work.

Sc. 24—Same as Scene 13. The decorations continue to appear until the tree is completely decorated.

Sc. 25—Longshot of Santa. He eyes the tree approvingly. Then he reaches his hand out to a sack, and in it suddenly appears a well-filled sack of presents. He looks into it and sets it down.

Sc. 26—Medium close shot of the tree. The presents slide into the pic-

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ture and group themselves around the tree.

Sc. 27—Close-up of Santa. He beams, well satisfied with his work.

Sc. 28—Longshot, Santa walks past table toward the fireplace. He sees the cup of coffee, picks it up, and drinks it. Then he walks over to Father and makes another mystic pass. Father abruptly disappears.

Sc. 29—Night effect longshot in the family bedroom. Mother is already in bed and asleep. Suddenly Father appears in his place in bed.

Sc. 30—Medium longshot of Santa. He drains the last bit of coffee and replaces the cup on the table. Then he turns toward the fireplace, and as he walks toward it, vanishes. FADE OUT.

Sc. 30—FADE IN Close-up of alarm clock, pointing to 7 A. M.

Sc. 31—Fullshot of living-room door. Mother, Father, and Junior enter, stop, and all three look toward tree.

Sc. 32—Longshot of the Christmas tree, fully decorated and lighted.

From this point, cut in your regular Christmas movie scenes, especially shots showing the family opening their presents. Junior has an electric train.

If possible get several shots of him playing with it, to be intercut with close shots of Father looking wistfully at the train, as though he would like to play with it, too. At the end of your regular Christmas news scenes carry on the continuity with:

Sc. 33—Close-up of alarm clock pointing to 7 or 8 P. M. This is a night-effect shot, and one of Junior's presents should be heard—the clock.

Sc. 34—Longshot in the living room. Father and Mother are both sitting, reading. Father gets up and walks over where the train is still held out.

Sc. 35—Medium close shot of the train layout. Father squats on the floor and starts to play with the train.

Sc. 36—Longshot past the fireplace, with Father playing with the train in the background. Suddenly Santa appears. He walks over to Father, and sits down.

Sc. 37—Close-up of Santa. He speaks to Father.

Title—"Mind if I play too?" I've always wanted to, but I've been so busy—"

Sc. 38—Same as Scene 37. Santa finishes speaking.

Sc. 39—Twoshot, Father and Santa. Father nods absently, then turns with enthusiasm and points out some interesting action of the train. They both fall to playing happily. FADE OUT—THE END.

The various appearances and disappearances in these scenes will mystify

most audiences, but they are very simple. It is only necessary to set the camera on a firm tripod, and shoot the scene quite normally up to the time the person or thing is to appear or vanish.

Then stop the camera while the thing that is to appear is put in place, and then restart the camera and finish the scene normally. The camera must not move a fraction of an inch between these two parts of the shot, and of course everything in the scene must also be in identically the same place and position in both parts, so that there will be no slightest "jump" on the screen.

In scenes where things appear or disappear while actors are in the scene it is necessary for the actor to "freeze"—hold himself motionless—while the apparition is put in place or removed, as the case may be. Some rehearsal of this is necessary, so that the actors can time themselves to be in easily held positions when the time comes to "freeze."

This is, of course, the way Santa picks his sack out of empty air. He simply reaches out his arm and "freezes." Then the sack is put in his hand, and camera and action continue to finish the scene normally.

Modified Stop Motion

Making the tree decorate itself is done in much the same way, by a modified stop-motion. Expose a few frames of the undecorated tree. Then stop the camera, and put the first ornament in place. Take a few more frames, stop, put in the next ornament, expose some more, and so on. Obviously, a tripod is necessary, but otherwise these tricks are simple.

If you happen to own a camera equipped to wind back for lap dissolves you can add fineness to your appearances and vanishings. You shoot the scene quite normally up to a point just a bit before the appearance. Then fade out.

Next, wind the film back to the point where you started the fade, just as in any lap dissolve. Run the person who is to appear in place and finish your scene, fading in. This

way, as you probably have seen in such films as "Tupper," the person slowly fades in (or out) while the rest of the scene remains unchanged.

Santa, appearing this way, would for instance begin as a very shadowy wraith, through which the fireplace could be clearly seen. Quickly his body would gather solidity, until finally he appeared quite normal.

These tricks are all simple, and, with the exception of lap-dissolved appearances, can be done with any camera. If they are well done, they will mystify non-technical audiences, and interest every audience. And how the children will enjoy them!

Germany Wants Features

According to the latest estimate of the Institute for Business Research Germany's requirements for long feature films amount to 200-220 annually. For the current season, 180-200 long feature films are available, on the basis of announcements up to this time.

Apparently Germany will again be short of long feature films in the 1937-38 season.

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NOW'S THE TIME TO GET BUSY ON YOUR SPLICING

Sales Executive Explains How Best to Master Hooking 'Em Up

By A. E. GAVIN

THE long winter evenings ahead present an opportunity for most moviemakers to catch up on their editing and splicing and to add that additional touch so necessary to the success of all home movies. Your films are really never complete until they are carefully edited and titled and the assortment of "shots" or scenes spliced together on one or more master reels.

With the ranks of home movie makers greatly increased during the past year, many have yet to purchase their splicing and editing equipment. If you are one of these embryo moviemakers you may be interested in a few pointers regarding splicers and their use.

Your selection of a splicer will, naturally, depend upon the amount you wish to invest, but for the average amateur, there are two or three low-priced splicers on the market that give excellent results. The splicer you select should enable you to make splices with accuracy and a minimum of operations.

The emulsion removing tool should be easy to use and positive in results. The "dry" type scraper, which eliminates need for moistening the film, will prepare a better bonding area and prevent damaging adjoining film area as is so often the case where water is applied to film before scraping.

One of the newest, and perhaps one of the simplest, cine film splicers is

the Seemann, moderately priced and capable of splicing accurately and securely either 8mm or 16mm film.

Special features consist of a dry scraper—particularly efficient on the heavier and more tenacious color emulsions, spring tension pins for holding film in place, and new style square cement bottle, with improved applicator, set into splicer base where it cannot rotate nor overturn.

Have Your Rewards

Besides your splicer you also should have a pair of film rewinds for spooling your film as you splice. Some amateurs use their projector for holding reels while splicing, but such an arrangement does not provide the easy winding facilities of regular rewinds.

In splicing your films, it is advisable to work with the spliced sections at your left, moving the film from right to left as each splice is completed.

In working with the Seemann both sections of film to be spliced are placed on the device with the emulsion or "dull" side up, so that the ends to be cut are over the trimming edges. The clamp is snapped in place to hold film over pins and to provide guide for emulsion scraper.


Cutting blade is then depressed to trim both sections of film at one operation. The emulsion is next removed by a few strokes of the dry scraper.

The right section of film is then moved to the left until it overlaps the scraped area and, holding up the overlapping end, cement is applied to the scraped area and the right pressure bar clamped in place to complete the splice. The pressure bars are left in clamped position for about thirty seconds to allow film cement to dry.

It's as simple as all that! In fact, it's really fun. And after you've once accustomed yourself to the use of your splicer you will never again leave those fifty and one hundred foot rolls of film lying around un-edited!

Slow Drying Best

Some beginners often make the mistake of applying too much cement to their splices, resulting in an untidy splice which hampers smooth projec-



1. With emulsion or dull side up, place both sections of film on splicer over the guide and tension pins so that ends to be cut extend over the trimming edges. (Clamp down left pressure bar.)

2. Depress cutting blade, trimming both ends of film accurately in one operation. Leave cutting blade in lowered position until after splice is completed!

3. Remove emulsion from protruding end of left film section with a few strokes of dry scraper. No need to moisten film. Make sure to remove all trace of emulsion in reserve a permanent splice.

4. Raise right film section from pins and move to left over fence or until it overlaps area just scraped on overlapping end. Apply cement to scraped area and clamp down right pressure bar.

5. Release both pressure bars after about thirty seconds, remove film from splicer and proceed with next splice.

Process of splicing 8mm or 16mm film with particular device described, beginning at top.

tion. Also, too much cement has a tendency to dissolve and weaken the film at the splice, ultimately causing it to break during projection. A better and more durable splice will result if a moderate amount of cement is used. When pressure is applied, the cement will spread over bonding area as required.

As many of the film cements on the market vary in formula they naturally give different results. Some dry more rapidly than others. For the average beginner, the slow drying cement is best, for it enables him to obtain better results due to its slower but more permanent curing quality.

Should your splices fail to hold, it may be due to one or more of the following causes: Oily or dirty film; bonding area not thoroughly cleaned of emulsion; too much cement; insufficient time allowed for cement to dry.

It is advisable to experiment with a few pieces of scrap film before commencing to splice your valuable films in order that you may acquaint yourself with operation of your splicer. Practice trimming film and removing emulsion as well as applying cement in just the right quantity.

To prevent marring your film with fingerprints it is advisable to wear a pair of cheap white light-weight cotton gloves, obtainable at most any department store.

When your splicing is completed and your newly edited film projected, you will agree that careful editing and splicing are equally important as any other phase of home movie-making.

San Francisco Cinema

OUR next regular meeting will be held Tuesday night, Nov. 30, at the California Camera Clubrooms, 45 Polk Street, at 8 o'clock sharp.

According to the By-Laws, Article VIII, Section 1, reads: "At the November meeting in each year the members shall elect a nominating committee of five members, who shall present nominations for officers and directors at least five days before the time fixed for holding the December meeting. The list of such nominees shall be sent to all members prior to the December meeting. Further nominations may be made at the meeting by any member. Election, if more than one candidate for any office be nominated, shall be by ballot."

Our program this month covers a very important phase of movie making; a very interesting and helpful talk on "Editing Your Films," given by our Past President, K. G. Stephens.

In addition, Member William Grant

will show three 400-foot reels of 16mm. Kodachrome and Member H. T. Kelly will show the final two reels of his 8mm. Kodachrome vacation film.

E. G. PETHERICK, President.

Stith-Noble to Release Tournament of Roses Film

The Stith-Noble Corporation, recently removed to new and larger quarters at 645 North Martel Avenue, Hollywood, announces this year it again will release a Kodachrome film of Pasadena's famous Tournament of Roses. The film will be a 16mm. subject approximately 300 feet in length, and the release is scheduled for January 5 next.

Full-color Kodachrome copies of the film will be offered for sale through all dealers. This firm has within slightly more than a year developed a process of duplicating 16mm. and 35mm. Kodachrome films. The forthcoming picture will be made in color by this process.

German-Japan Accord

A German-Japanese accord which provides for the exchange of cultural and educational films between the two countries was signed recently by the International Cinema Association of Japan and a representative of the German Propaganda Ministry, according to reports published in Tokyo and reported to the Department of Commerce.

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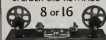
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Agfa Ansco Issues Book on Developing Processes

A profusely illustrated, sixty page booklet, "Developing and Printing Made Easy," has just been published by Agfa Ansco Corporation of Binghamton, N. Y. Covering all phases of developing and printing, this new Agfa booklet has been designed to serve both as an instruction manual for the beginner and a reference for the advanced amateur.

Included with the discussion of developing, contact printing and enlarging are such topics as contrast, temperature control, redaction and intensification, washing and drying, selection of paper and projection control.

Also given in the booklet are lists of necessary equipment for home finishing, tables of causes and remedies of finishing troubles and recommended formulas for developers and other processing solutions. The new booklet, a companion in size and style to Agfa's "Better Photography Made Easy," lists at 25 cents and may be obtained from your photographic dealer or by writing Agfa Ansco Corporation.

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Shooting Waterfront As Sherlock Does It

(Continued from Page 315)

wharf. Little boats are darting to and fro on the water. There is plenty of action and human interest here and further use for a wide angle lens.

Dockyards

Dockyards are more attractive if there is a well known boat in dry dock. Open with a shot taken under the bows of the boat looking skyward, showing the name of the boat. Then again from the floor of the dock show cranes working with the sky as a background.

The most attractive shot will be of the propellers and rudder with men working on them. Try to get them in the sunlight, as Kodachrome has a bluish tint if taken in shadow. An interesting episode in a drydock is when the valves are opened to let the water flow back in the dock.

Ferry Boats

Open this sequence with a ferry boat coming toward the camera, which has been placed on a wharf, with close-up of the rope being shown on to a pile and people boarding the boat. When this is taken the cameraman does likewise.

Shoot down at the same pile with the rope being lifted off and the wharf receding as your boat pulls out. This will make a smooth continuity if any interesting shots are to be filmed while the ferry is moving, a film speed of 32 frames per second will give a more even picture than the normal speed of 16 frames per second. If the names of the wharves you stop at are to be seen, photograph them, and get a few pictures of a similar ferry to the one you are on, that is if you pass one. Finish this sequence with a fade-out as your ferry leaves you on a wharf.

Pleasure Craft

This sequence would have to be made to suit local conditions. Here in Sydney there are races held each weekend for sailing boats known as 16-footers and five or six thousand spectators follow the races on large ferries, the roof of which can be used, with permission of the skipper, to erect a tripod.

Using a two-inch lens these small boats make an attractive picture when they commence their race and when they turn around the buoys. Speed boats are best photographed when making a turn or at the finish of a race.

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papers. These publish the time to expect large boats and also give the boats that are in dock. When shooting be careful to get people in the scene. Human interest is what is needed even in harbor films, and very likable folk are these harbor people.

Cine cameras are simple, but the amateur who is patient enough to arrange a story or theme before he starts Kodachrome his harbor film will use less film and have a better picture to edit. Technical skill is not as valuable as the power of observation and patience.

Keep Things Moving

In making a harbor film it is as well to remember that you are making a moving picture. This means that not only is the film moving through the camera but each scene must contain some movement and not too much sky and water. Therefore, shooting must be done close to the shore most of the time.

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Long shots can be made occasionally, if a figure, tree or boat is in the foreground. This will give a sense of depth to the scene and at the same time frame the picture.

If the background is more than one mile away use a Kodachrome haze filter. This makes all colors warmer and gives more detail in long shots. The Kodachrome chart is an excellent way of judging light values, but owing to the calculation necessary is not so handy as an electric exposure meter.

If the latter is used hold it down toward the water and measure this reflected light for long shots. Close ups can be measured close up, as the most popular meters are calibrated for all colors including white and black.

It took the writer two years to make his harbor film, and he enjoyed every minute spent on the waterfront.



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